



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

**Region 6**

**1445 Ross Avenue, Suite 1200**

**Dallas, TX 75202-2733**

October 28, 2016

Maria Garcia  
Santa Fe National Forest  
11 Forest Lane  
Santa Fe, NM 87508

Subj: Geothermal Leasing EIS Project, Santa Fe National Forest

Dear Ms. Garcia:

In accordance with our responsibilities under Section 309 of the Clean Air Act (CAA), the National Environmental Policy Act (NEPA), and the Council on Environmental Quality (CEQ) regulations for implementing NEPA, the U.S. Environmental Protection Agency (EPA) Region 6 office in Dallas, Texas has completed its review of the above Draft Environmental Impact Statement (DEIS). The DEIS discusses the potential environmental effects of the proposed geothermal leasing that is required to satisfy the Forest Service obligations under the Energy Policy Act of 2005.

EPA rates the DEIS as "EC-2," or "Environmental Concerns and Requesting Additional Information." The EPA Rating System Criteria can be found here: <http://www.epa.gov/oecaerth/nepa/comments/ratings.html>. We have enclosed detailed comments that further describe our concerns and need for additional information to be addressed in the Final EIS (FEIS).

EPA appreciates the opportunity to review the DEIS. Please send our office two copies of the FEIS, and an internet link, when it is sent to the Office of Federal Activities, EPA (Mail Code 22252A), William Jefferson Clinton Federal Building, 1200 Pennsylvania Ave., N.W., Washington, D.C. 20004.

Our classification will be published on the EPA website, [www.epa.gov](http://www.epa.gov), according to our responsibility under Section 309 of the CAA to inform the public of our views on the proposed Federal action. If you have any questions or concerns, please contact me at (214)-665-8565 or via email at [houston.robert@epa.gov](mailto:houston.robert@epa.gov) or Michael Jansky at (214) 665-7451 or via email at [jansky.michael@epa.gov](mailto:jansky.michael@epa.gov) for assistance.

Sincerely,

Robert Houston, Chief  
Special Projects Section (6EN-WS)  
Compliance Assurance and  
Enforcement Division

Enclosure

**DETAILED COMMENTS  
ON THE  
UNITED STATES FOREST SERVICE  
DRAFT ENVIRONMENTAL IMPACT STATEMENT  
FOR  
THE PROPOSED SANTA FE NATIONAL FOREST  
GEOTHERMAL LEASING PROJECT**

**Background:**

The Santa Fe National Forest (SFNF) proposes to identify lands in Sandoval and Rio Arriba Counties, New Mexico (project area) and administered by the Forest Service as closed to geothermal leasing under either nondiscretionary or discretionary authorities or open to geothermal leasing, subject to stipulations. Sandoval County is directly south of Rio Arriba and is part of the Albuquerque metropolitan. The leasing area encompasses 194,910 acres in which 168,650 acres are National Forest System (NFS) lands. The acres are located in the Coyote, Cuba, Espanola, and Jemez Ranger Districts and comprise the decision area for the project; non-federal lands are not included in this decision. This DEIS will aid in the Forest Service decision about providing concurrence and consent to the BLM to lease lands in the SFNF for developing geothermal resources.

The forest supervisor's decision on whether the proposed action should be implemented as proposed, modified by another action alternative, or not implemented at all will be determined under four (4) alternatives:

**Alternative 1-No Action;** SFNF would continue to evaluate geothermal lease applications on a case-by-case basis under separate NEPA analyses, in accordance with the Forest Plan and existing laws and regulation. SFNF determined that this alternative does not meet the purpose and need.

**Alternative 2-The Proposed Action;** "SFNF would implement discretionary and nondiscretionary leasing closures for geothermal resources." Approximately 32,000 acres would be closed to geothermal leasing in the project area and 136,000 acres would be allocated as open to geothermal leasing.

**Alternative 3-No Leasing;** "All Forest Service lands in the project area would be closed to geothermal leasing, and there would be no direct or indirect impacts."

**Alternative 4-Development;** "There will be fewer areas identified as closed to geothermal leasing, and the stipulations would be less restrictive compared to Alternative 2. The intensity or severity of impacts could be greater in certain areas."

EPA's comments on the DEIS are as follows:

### **Tribal Analysis:**

EPA believes that the USFS is implementing its Tribal Analysis in accordance with Executive Order 13175 and is conducting government-to-government consultations with Pueblo and tribal groups. The Jemez Mountains are a sacred place, a sacred landscape and a historic landscape to the Pueblo and tribal groups. The Pueblo of Jemez, Pueblo of Zia, Pueblo of Santo Domingo (Kewa), Pueblo of Santa Ana, Pueblo of Cochiti, Pueblo of Ohkay Owingeh, Pueblo of Santa Clara, Pueblo de San Ildefonso, Pueblo of Nambé, Pueblo of Pojoaque, Pueblo of Tesuque, Pueblo of San Felipe, Jicarilla Apache Tribe, and the Navajo Nation could be directly affected by the proposed project.

The USFS has taken comments received from the public and tribes during scoping under consideration in analyzing alternatives. The representative of the groups interviewed (Native American and Hispanic groups) were not in favor of geothermal energy development, because of the impacts on water quality and availability. Their desire is to recover ownership of lands that were part of their original land base, and are concerned about committing lands to other uses. On August 10, 2015, the Pueblos Council of Governors unanimously adopted a resolution advocating closing the forest to geothermal leasing.

### **Environmental Justice Analysis:**

Based on Race/Ethnicity in 2014, all populations in the project area have more than 50 percent aggregate minority populations, and therefore qualify as minority populations under CEQ guidance. A large percentage of the population in the area identify as American Indian. The USFS noted that it will address environmental justice populations in the project area in the EIS to mitigate any disproportionate environmental impacts on these populations, following guidelines set forth in Executive Order 12898.

The degree of impact and contribution to cumulative impacts would vary by alternative. Per SFNF, the programmatic nature of this EIS does not allow for analyzing specific environmental justice populations in the project area at this time. Site-specific considerations for environmental justice populations must occur to mitigate any disproportionately high and adverse impacts from geothermal development, in compliance with Executive Order 12898. Without site-specific plans for geothermal development, impacts on environmental justice populations in the project area cannot be determined at this time.

The trust responsibility is the US government's permanent legal obligation to exercise statutory and other legal authorities to protect tribal lands, assets, resources, and treaty rights, as well as a duty to carry out the mandates of federal law with respect to Native American tribes. EPA recommends that the SFNF make every effort to decide on an alternative that has the least adverse impact to the Environmental Justice populations and tribes. We further recommend that SFNF utilize the Promising Practice Report to supplement the applicable requirements for considering and analyzing the Environmental Justice populations and tribes for each phase of the proposed project. For specific assistance with regard to the above comments, please contact Agatha Benjamin, P.E. at (214) 665-7292, EPA Region 6, 1445 Ross Ave, Dallas, TX 75202.

## **Emissions**

The DEIS does not contain estimates of the GHG emissions that would be caused by the alternatives considered. Consistent with CEQ's *Final Guidance for Federal Departments and Agencies on Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in National Environmental Policy Act Reviews* (CEQ Guidance), the EPA recommends that the FEIS estimate the direct and indirect GHG emissions that would be caused by the proposal and its alternatives.<sup>1</sup> Examples of tools for estimating and quantifying GHG emissions can be found on CEQ's website.<sup>2</sup> Estimated GHG emissions levels can serve as a basis of comparison for climate change impacts among alternatives and appropriate mitigation measures.

The EPA recommends that the FEIS identify and consider measures to avoid or reduce GHG emissions associated with the project, including reasonable alternatives and practicable mitigation opportunities, and disclose the estimated GHG reductions.<sup>3</sup>

## **Climate Change Adaptation**

The DEIS does not include consideration of future climate scenarios, and how they may impact the proposal and its impacts. Consistent with the CEQ guidance,<sup>4</sup> we recommend that the FEIS describe potential changes to the affected environment that may result from climate change. Including future climate scenarios, such as those provided by the USGCRP's National Climate Assessment,<sup>5</sup> provides information valuable to determining whether the proposal includes appropriate resilience and preparedness measures for the impacts of climate change.

The EPA recommends that the proposal's design incorporate measures to improve resiliency to climate change, where appropriate. These changes could be informed by the future climate scenarios addressed in the "Affected Environment" section. The FEIS's alternatives analysis should, as appropriate, consider practicable changes to the proposal to make it more resilient to anticipated climate change. Changing climate conditions can affect a proposed project, as well as the project's ability to meet the purpose and need presented in the EIS. One such example would be infrastructure located in coastal regions that may be affected by sea level rise.

## **Effects of Climate Change on Project Impacts**

We recommend USFS determine whether the environmental impacts of the alternatives would be exacerbated by climate change. This determination should be informed by the future climate scenarios outlined in the affected environment section. If impacts may be exacerbated, additional mitigation measures may be warranted.

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<sup>1</sup> White House Council on Environmental Quality, *Final Guidance for Federal Departments and Agencies on Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in National Environmental Policy Act Reviews*, p.11, p. 16.

<sup>2</sup> [https://ceq.doe.gov/current\\_developments/GHG-accounting-tools.html](https://ceq.doe.gov/current_developments/GHG-accounting-tools.html)

<sup>3</sup> CEQ Guidance, p. 18.

<sup>4</sup> CEQ Guidance, p. 20.

<sup>5</sup> <http://nca2014.globalchange.gov/>